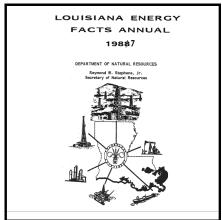
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Louisiana Department of Natural Resources Newsletter

The Name of the Game is Technology Assessment

Employee Profile Manuel Lam Office of the Secretary Technology Assessment Baton Rouge





Louisiana Department of Natural Resources

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The man behind the curtain can be described as quiet and smart, and maybe even- a wizard! He is our featured employee, Manuel Lam, Office of the Secretary, Technology Assessment Division with over

thirty –one years of public service. Lam has had a longtime career as the department's Senior Energy Analyst. Data analysis, forecasting, research, and the *La. Energy Facts* publication have been 'his thing' since 1987.

Lam has been the agency's go-to-guy for all things statistical for the oil, gas, and energy sector of the state's economy. He is a member of the American Institute of Industrial Engineers and American Statistical Association. He earned an undergraduate and Masters' degree from LSU and holds a computer sciences degree from Instituto Metropolitano, Lima, Peru.

Before joining the DNR staff, Lam worked as a consultant in computer system designs. He enjoys his role within the Technology Assessment and State Energy office where he provides technical support, energy analysis and forecasting, as well as energy modeling for the DNR Secretary. Lam has been called upon to work with the Public Service Commission, Senate and House Legislative Committees, and a number of Revenue and Budget groups over the years. If it is historical oil and gas numbers you are in need of, he's got it or can point you in the right direction.

Lam has studied and prepared articles on various topics from existing gas shales across the U.S. to the significance of GOMESA, the 2006 law enhancing Outer Continental Shelf (OCS) revenue sharing for energy producing states.

His co-workers, family, and friends know of his funny side which he disguises behind a very quiet and serious disposition. He is also quite devoted to his church parish community, scouting, and several catholic charities. He and his wife Laura have two sons.

We recognize Manuel for all of his good work!

Top right: Manuel Lam served as editor of the first Louisiana Energy Facts Annual which was published in 1987.

The mission of the Department of Natural Resources is to ensure and promote sustainable and responsible use of the natural resources of our state so that they are available for the enjoyment and benefit of our citizens now and in the future.

There is a time for everything, and a season for every activity under the heavens— A Salute to DNR Secretary Stephen Chustz

Named the department's Secretary in August 2012, Stephen Chustz has diligently and selflessly served the department and has guided its offices through some tough economic times. From the very day his leadership at DNR began, he has been held in high esteem by employees and colleagues alike. Problem-solving is just plain second-nature to him.

His career started in state government service in 1987, when he worked at the Department of Environmental Quality as a Geologist and Administrator. He later joined DNR in 2008, and the timing was just right.

Recently, the state Mineral and Energy Board gave tribute to Secretary Chustz noting that his tenure was faced with an unprecedented natural crisis in the collapse of a brine solution cavern in the Napoleonville Salt Dome in Assumption parish, and with his guidance and tenacity, lead DNR down a path of assured solutions and recovery.

He has been no ordinary leader – exemplifying what true public service can be working tirelessly to improve and manage the agency through tough fiscal times.

To Steve Chustz, we sincerely thank you, we commend you, and we will always recognize the tremendous dedication and service you brought to the job as Secretary of the Department of Natural Resources!

New Mexico State Land Office Travels to Louisiana for Education and Training

DNR Office of Mineral Resource's Mineral Income Director Rachel Newman, Deputy Assistant Secretary Stacey Talley, and members of the mineral income staff met with New Mexico State Land Office Director for Royalty Management Danny Martinez in December to discuss oil and gas royalties and accounting practices.

The New Mexico State Land Office is responsible for administering nine million acres of surface and thirteen million acres of subsurface estate for the beneficiaries of the state land trust, which includes schools, universities, hospitals and other important public institutions.

Newman said the group visited the state Department of Revenue as well as DNR in an effort to learn advanced practices for upgrading their accounting system.



Regulating Louisiana: Conservation's Dedicated Geologists and Engineers

Office of Conservation's Injection and Mining Division has the responsibility of implementing two major federal environmental programs. The Underground Injection Control (UIC) program has federal oversight from the Environmental Protection Administration (EPA) and the Surface Mining Program has federal oversight from the U.S. Department of the Interior, Office of Surface Mining.

The Injection and Mining Division reported Permitting Activity for 2014 to be 1006 permits and in 2015 there were 1040 permits.

Office of Conservation's Injection and Mining Director Stephen Lee is pictured right with IM Managers; Geologist Teresa Rougon, Engineer Kellie McNamara and Geologist Pierre Catrou.



2015 Achievements

Office of Coastal Management

The state's Coastal Mitigation Program and Account achieved one of its goals in concert with the CWPPRA Lake Hermitage Restoration and Marsh Creation project in Plaquemines parish this year. OCM's Beneficial Use funds were used for 25 additional acres of brackish marsh restoration for the project. Over the course of time, natural re-vegetation has occurred and during a site visit in September, OCM Mitigation Manager and biologists reported over ninety percent of vegetative cover was present at the site.

The Lake Hermitage CWPPRA project's NRDA component was to create new brackish marsh that was compensation for losses due to the Deepwater Horizon oil spill. The created marsh benefited the Barataria Hydrologic Basin which was heavily impacted by the oil spill.

OCM's Interagency Affairs division developed, completed, and gained federal approval for the FY17-FY21 Assessment and Strategy for programmatic developments and enhancements to the Louisiana Coastal Resources Program. The approval made the Office of Coastal Management eligible for additional non-matching federal funds estimated at \$500,000 each year for the next 5 years, starting July 1, 2016.



Lake Hermitage Project in Plaquemines Parish

Office of Coastal Management Coastal Use Permits Program 20 parishes in the coastal zone, 10 parishes with approved local coastal permitting programs Handled 1,272 CUPs in 2015

2015 Achievements

Office of Mineral Resources

The revision of the Lignite Lease Form was a top priority and accomplishment in the Office of Mineral Resources. The revised form provides multiple means of generating revenue for the state while ensuring environmental protection of the land. The updated lease form is in line with current industry standards and has had a positive outcome by renewing interest in lignite mining.

For 2015, OMR entered into exclusive geophysical agreements for over 40,000 acres – these agreements allow the Mineral and Energy Board to make better decisions on the fair market value of the state's assets as they decide on the awarding of mineral leases each month. Three of the exclusive geophysical agreements amounted to \$1.4 million in state revenue.

Office of the Secretary - Legal Division

A complete overhaul of the department's Administrative, Human Resources, Fiscal, and Procurement policies was achieved during this calendar year. Working alongside the Secretary, the Legal staff took on rewriting some fifty-plus policies and procedures, bringing them up-to-date with current laws and requirements, allowing for prudent and efficient business practices.

With strong support from the public and industry, the agency's Legal and Mineral Resources team began a rewrite of the State's Mineral Lease Form, holding meetings with various groups and committees for input to ensure a new form would improve communications and workplace efficiency. The new form should move through the Board's final approval phase in January.

Mineral and Energy Board Meetings and Lease Sale 2016 Schedule

The state Mineral and Energy Board holds its meetings on the second

Wednesday of each month in the LaBelle Hearing Room located on the first

Wednesday of each month in the LaBelle Hearing Room located on the first

Feb 10

May 11

Aug 10

Nov 9

floor of the LaSalle Office Building in Baton Rouge.

Mar 9

Jun 8

Sep 14

Dec 14

Continued from page 3

2015 Achievements

Office of Conservation

The Office of Conservation revised rules effective September 1, 2015 requiring all newly permitted wells and wells transferred between operators to be covered by financial security for proper plugging and abandonment in the event the operator becomes orphaned or incapable of performing the tasks. The amounts have been increased to more adequately cover the actual cost of plugging wells based on the Oilfield Site Restoration program abandonment costs incurred. This action ensures that industry and government focus on contemporary times and impacts to safeguard and protect the environment.

The Office of Conservation, Engineering Administrative Division, Wells Files Section and Production Audit coordinated with the agency's Information Technology office on several initiatives that will increase department efficiencies. The primary results of that collaboration was the creation of a revised Online Production Reporting system for several new forms which can be found using the DNR SONRIS database. Bi-yearly well test reporting forms include the DM-1R (for oil wells), DT-1 (for gas wells), and the WR-1 (for inactive wells). This initiative was designed to serve as a management tool and to provide better customer service for operations in the field.



Several Office of Conservation rules were modified and adapted with Acts 332, 362, 448 and 253 of the 2015 Legislative session.

Statewide Water Resources Assessment Nearing Completion By Dr. Matthew Reonas, Office of Conservation Environmental Division

A water resources assessment looking at long-term sustainability and energy management issues for Louisiana is moving towards completion in 2016. The study was commissioned through a joint effort of the Department of Natural Resources and the Coastal Protection and Restoration Authority. The non-profit Water Institute of the Gulf is conducting the research and developing a framework for evaluating regional demand and supply in the state, first applying the pilot framework to three especially critical areas of the state—southwest Louisiana, including the eastern part of the Chicot Aquifer, and surface water basins including the Bayou Teche, and Vermilion and Mermentau Rivers; northwest Louisiana, including the Carrizo-Wilcox Aquifer area and surface water basins including parts of the Sabine and Red Rivers, Bayou Pierre, Bodcau Bayou, and others; and southeast Louisiana, including the western part of the Southern Hills aquifer area, and surface water basins like the Amite, Tickfaw, and lower Mississippi rivers.

The purpose of this effort has been to provide an appraisal of current and expected future water supply and use and to develop a framework that can be utilized to inform short- and long-term management decisions and minimize the potential impact of future growth on overall water supply costs. Ensuring a clean and sustainable supply of fresh water for Louisiana's people, farms, and businesses, while also conserving energy and containing the energy costs associated with drawing on and delivering water, is one of state government's most serious and vital charges.

The Water Institute conducted an extensive evaluation of existing state-level water management and water budget frameworks before embarking on the creation of a unique framework for evaluating water demand and supply here in Louisiana. Importantly, the study links surface water and groundwater resources into a comprehensible whole. The availability and delivery cost of these water resources is weighed against both current use and projected demand based on population and economic forecasts.

Advising the Water Institute in its work has been a Technical Coordination Team composed of several leading water scientists from around the state, including John Lovelace with the U.S. Geological Survey and Gary Hanson of LSU-Shreveport's Red River Watershed Management Institute. Members of the state Water Resources Commission will review the assessment's completion in early 2016.

The Nature Conservancy and DNR Atchafalaya Basin Program Announce Partnership

On December 17, the Nature Conservancy and DNR signed a Memorandum of Understanding (MOU) that paves the way for an important public-private partnership to initiate restoration of the Atchafalaya in the Bayou Sorrel region of the Basin.

The MOU will allow funding allocated to the Atchafalaya Basin Program's East Grand Lake Project to be used as matching funds for an additional one million dollars from the North American Wetlands Conservation Council (NAWCC) which manages the North American Wetland Conservation Act of 1989.

The Council is administered by the USFWS and is made up of state and non-governmental organization representatives including Secretary Robert Barham of the Louisiana Department of Wildlife and Fisheries as well as TNC state director Keith Ouchley. An initial proposal to support acquisition of TNC's Atchafalaya Basin Preserve was submitted in February of 2015 and approved for funding by the NAWCC in July and the Migratory Bird Conservation Commission in September. The grant will mark the first investment of NAWCC funds in the Atchafalaya Basin and was made possible by matching funds previously provided by Shell Pipeline, TNC and other partners.



"The Nature Conservancy can't achieve on-the-ground conservation without great partners," said Keith Ouchley, director of The Nature Conservancy in Louisiana. "That's why we deeply appreciate the commitment, collaboration and dedication demonstrated by DNR Secretary Chustz, Shell Pipeline, USFWS, the NAWCC, and all of our Atchafalaya conservation partners."

Secretary Chustz commented, "Through our private-public partnership with TNC, our Atchafalaya Basin Program can leverage resources to expand our hydrological restoration efforts in the East Grand Lake area of the Atchafalaya. We hope this is just a beginning to a series of conservation investments in the Atchafalaya Basin, a resource that is so unique and special to Louisianans and is really the heartbeat of the Cajun culture."

TNC is presently developing a second NAWCA proposal that will be submitted to USFWS at the end of February and will focus upon restoration of flows from the Atchafalaya River and addressing problems with excessive standing water which impacts the health of bottomland hardwood forests as well as cypress and tupelo trees.

Photo right: TNC Director Keith Ouchley and ABP Director Don Haydel sign a Memorandum of Understanding for the Bayou Sorrel project.

Natural Resources Staff Travel to Community Outreach Events Across the State





Dutchtown High School Career Fair — Ascension Parish

Jewel Sumner Middle School — Tangipahoa Parish

Nesom Middle School — Tangipahoa Parish

Riverside Elementary School — St. Tammany Parish

La. Science Teacher Association's Math and Science

Conference — Baton Rouge